



# MARSHALL STAR

Serving the Marshall Space Flight Center Community

Oct. 16, 2003

## New eyes for Shuttle launches

*NASA Headquarters release*

**W**hen the Space Shuttle lifts off from Kennedy Space Center, thousands of people watch it from nearby beaches, around the world on TV, and live on the Internet.

As NASA prepares for return to flight, the most important set of eyes will be dozens of cameras located everywhere from right next to the Shuttle on the pad to several miles up and down the coast of Florida.

At Kennedy Space Center, more than \$3 million in digital analysis equipment has recently been added, marking a major improvement in the ability of NASA to study images in the days following

*See Eyes on page 2*

## First female Shuttle commander hopes more women join astronaut corps

***Eileen Collins says space 'greatest adventure'***

*NASA Headquarters release*

**O**n her last mission, Eileen Collins became the first — and currently only — female Shuttle commander. On her next flight, she will command the historic STS-114 “Return to Flight” mission — the first after the Columbia tragedy.

“When I was very young and first started reading about astronauts, there were no women astronauts,” Collins said.

However, she was inspired while she was a child by the Mercury astronauts, and by the time she was in high school and college, new opportunities were opening up for women in aviation.

“My timing was really great,” Collins said.

Collins joined the Air Force, and during her first month of

*See Collins on page 4*



Photo by David Higginbotham, NASA/Marshall Center

### ***NASA officials discuss ‘Return to Flight’***

Maj. Gen. Michael Kostelnik, left, NASA deputy associate administrator for International Space Station and Space Shuttle, participated in a discussion of Return to Flight issues during a visit with Marshall’s Shuttle team last week in Morris Auditorium. Joining him are Marshall Center Associate Director Axel Roth, center, and Space Shuttle Program Manager Bill Parsons, right.

## NASA moves Shuttle Columbia Recovery Office to Kennedy

*Kennedy Space Center release*

**N**ASA has moved the Columbia Recovery Office to Kennedy Space Center in Florida. By moving the office from Johnson Space Center in Houston to Kennedy, NASA has the storage and coordination of Shuttle debris at one location.

Although the volume of calls to report new debris has decreased, with hunting season about to begin in East Texas, where the majority of debris was found, there could be an associated increase in calls.

The CRO opened April 28, and will remain operational as long as call volume warrants.

“We are still interested in retrieving any debris reported by the public,” said Dave Whittle, chairman of the NASA Mishap Investigation Team and head of the Columbia Recovery Office.

*See Columbia on page 2*

## Eyes

*Continued from page 1*

launch.

Following recommendations by the Columbia Accident Investigation Board, NASA plans to double the number of cameras used during launch to get a clearer picture of the Shuttle on its way into space.

On launch day, about two and a half miles north of the pad, a technician will sit on top of a robotic camera, and use a

joystick to track the orbiter as it heads into space.

"The joystick is so sensitive it even responds to the heartbeat of the person using it," said Bob Page, chairman of the NASA photography group.

These cameras will view every angle of the Shuttle during launch, and give engineers the pictures they need to make sure that the orbiter reaches space safely and without damage. About an hour after

launch, a dozen engineers will sit in a dark projection room and carefully examine videos taken of important parts of the Shuttle, such as the pipes between the external tank and the orbiter, which deliver liquid hydrogen and oxygen to the Shuttle's main engines. The high-resolution film will be processed in the days following launch and examined by teams at NASA centers across the country.

## Columbia

*Continued from page 1*

"From the standpoint of those calling in, the change should be invisible. Since Kennedy is the storage location for the debris, and since it is still the center receiving calls about Challenger, we feel they are the right people to handle long-term support of Columbia calls."

The toll-free Columbia Shuttle Material hotline is answered 24 hours a day, seven days a week. Anyone who finds material believed to be part of Columbia is urged to call the

hotline at: 1-866-446-6603.

The Columbia Recovery Office operates the Shuttle Inter-agency Debris Database for data management, record retention, and mapping. The office will arrange for larger or potentially hazardous Shuttle debris recovery. Office officials may ask finders to ship smaller, non-hazardous objects to the office. For more information about NASA, the Columbia accident investigation and human spaceflight on the Internet, visit: <http://www.nasa.gov>.

### Program series highlights Huntsville's role in a century of flight

*from the Internal Relations and Communications  
Department*

**T**hree Marshall Center team members will participate in a series of programs at the main branch of the Huntsville-Madison County Public Library to celebrate the Centennial of Flight.

The series of programs sponsored by the library are called "A Century of Flight: The Rocket City Connection." The program series offers an in-depth exploration of Huntsville's significant contributions to flight, especially the U.S. space program. The programs are geared to offer learning opportunities for people of all ages.

On Oct. 18, at 10 a.m., Marshall Center Historian Mike Wright will present "Mars in the Human Imagination." At 11:30 a.m., Marshall engineer Bradley Carlson will present a program entitled, "Exploring Mars."

On Nov. 12, at 7 p.m., Bob Jaques, a historian at Marshall, will present a program on "The Wright Brothers." He will bring original Wright Brothers memorabilia to augment the presentation.

All of these programs are free, and open to the public.



Marshall Imaging Services

#### **Who am I?**

I was born at home in Paint Rock Valley in Jackson County and was the oldest of 10 children. I almost died of whooping cough when I was a child. I helped clear the Marshall picnic grounds and I remember when Bldgs. 4207, 4755, 4752 and all of the buildings in the 4200 complex were constructed. The photo shows me when I worked in "Off-post Shipping." To see who I am, go to page 8.

# Marshall engineer Eduardo Adams fulfills his dreams, inspires youth in Yucatan homeland

## *Marshall celebrates Hispanic Heritage Month*

by Grant Thompson

When Eduardo Adams built his first rockets in his hometown of Mérida, the capital of the Yucatán region of Mexico, they were primarily made of discarded wood, empty cans and bottles and a young boy's dreams of outer space.

Today, Adams works at the Marshall Center where he's building on those dreams — with slightly more high-tech materials.

Adams, a systems engineer in Marshall's Engineering Directorate, which provides development and research engineering services for the Center, works on programs such as the X-37 flight demonstrator and the Orbital Space Plane, both next-generation launch technology programs that represent the future of space transportation.

Such a career would have come as no surprise to Adams in his youth. He was an avid reader at an early age, inspired to work on space vehicles after reading about German rocket scientist Wernher von Braun and the work being done in Huntsville.

"I read everything I could get my hands on that had to do with rockets," says Adams — whose three-car garage is stacked to the ceiling with books about a variety of subjects. "It was all so fascinating, the idea of traveling into space. I would get excited just thinking about working for NASA. For a Yucatecan boy, it was so foreign to us, but it was my dream to do it."

After becoming a U.S. citizen in 1978, and graduating from Auburn University, he taught elementary and high school science and math in Huntsville and nearby Scottsboro for four years. Then a job announcement in the newspaper caught his eye: NASA was hiring. He came on board at the Marshall Center in 1979, working in the Materials and Processing Lab, which studies and evaluates different materials used in space hardware.

"When I started here, I honestly had to thank God because I knew my dreams had come true," he said.

While working in Huntsville, Adams, who is part Mayan, continued to maintain ties to his homeland. He wanted to do something to spread the message of science and give something back to the area that had given him so much growing up.

In the summer of 2002, Adams found his opportunity. Thanks to his efforts, Yucatan Gov. Patricio Patron Laviada welcomed

Adams and former astronaut Dr. Jan Davis to Mérida. Davis, director of the Safety and Mission Assurance organization at the Marshall Center, took part in a two-week tour of the Yucatan region, including visits with numerous state government officials and members of the educational communities in the area. Their presence was felt immediately.

"We could not have been welcomed with more open arms, not just by the officials, but also by the everyday people we met," Adams said, who served as Davis' translator. "We were on the television and in the papers, so when people would see us walking down the street they would shout, 'Hey, there's the astronaut lady!' It really was

an overwhelming experience."

Recalls Davis: "The entire trip was such a positive encounter for me, and the chance to share the NASA mission with our hosts made me realize what an impact the Agency has. It validates our efforts to try to inspire the next generation of explorers. We just plant the seed, and it's their imagination that helps it grow."

Although the trip took place more than a year ago, Adams is still feeling the impact every day. He gets e-mails almost daily from students in the Yucatan, asking questions about science and math, as well as what it takes to work at NASA. "These kids are great," Adams says. "They are asking the right questions that will help them understand what it takes to do the things they dream about. It's their dreams that will enable them to discover something new and amazing in their future."

*The writer, employed by ASRI, supports the Media Relations Department.*



Adams

David Higginbotham, NASA/Marshall Center

### **Energy Tip**

The biggest water-user in a home is typically the toilet. Use the following tips to conserve water – and money:

- ☛ Install low-flow toilets
- ☛ Place a plastic container filled with water or any non-corrosive object that will displace that amount of water in the tank of your conventional toilet.

If you place a container in your toilet, be sure it does not interfere with the toilet's flush mechanisms.



# Collins

*Continued from page 1*

training, her base was visited by the newest astronaut class — the first to include women — and her path was set.

"I wanted to be part of our nation's space program," Collins said. "It's the greatest adventure on this planet — or off the planet, for that matter. I wanted to fly the Space Shuttle."

On being the first and only female Shuttle commander, Collins said, "Hopefully not for long!"

Collins said she's looking forward to losing the part about being the "only" female commander. She said she hopes current astronaut Pam Melroy will soon join her, and that more will follow. "I'm really pulling for her."

Collins said that she encourages young women to become test pilots so that they can someday become Shuttle commanders as well.

"The young people are going to be the ones to take us on to more exciting adventures," Collins said. "My advice to young people is to go into the field you are most interested in. If you love your job, you'll do well in your job."

While coming from a mathematics, science, or technology background is a must, there's a lot of variety in what exactly young people can pursue for an astronaut career. In fact, Collins discourages people from looking at what other astronauts are in and choosing that. The exact opposite worked for her. When she joined the corps, there were no astronauts in her field of operations research.

"I said I think I can fill a void, and I think they bought it," Collins said.

It's paid off, too, she said, since much of her background ties in directly to the operation of the Shuttle.

When asked what is the most exciting thing about space flight, Collins said, "If you had asked me this question after my

first mission, I would have said the launch. Now, I would say seeing the successful completion of the mission."

As an example, she cited the first mission she commanded, STS-93, on which the Chandra X-Ray Observatory

was deployed.

"There were so many people involved in the Chandra project and the launch," she said, "and it's been really rewarding seeing the amazing pictures that Chandra has

taken. Everybody came together and made it happen."

Collins said she is excited about her upcoming visit to the International Space Station during the STS-114 mission.

"It's hard to wait," she said.

The opportunity to visit the International Space Station is why she decided to keep flying at a point in her career when many astronauts retire from space flight.

"I had never gone to the Station, and I really wanted to go to there," Collins said. "I really wanted to be part of the Station mission."



Collins

Marshall Imaging Services

As to the future of space flight, Collins said, "I would like to see more people traveling to space someday. I would like to see space tourism blossom. It's such an incredible experience."

Collins said that during her space flights, there is so much she has to do that there is little time to just enjoy being in space.

"Someday I would like to go into space as a tourist, and have the time to have fun," Collins said.

She's very interested in developments in the field of civilian space flight, such as the X Prize competition.

"I just think that's really exciting," Collins said. "That's an experience that more people ought to have. I think we'd have a better community on Earth if more people traveled in space."

While they're waiting for their next flight, Collins said, her crew has been involved in research on making the Space Shuttle safer, and has been visiting the factories involved in the Space Shuttle program and meeting the workers.

"When the Shuttle's ready to fly, we'll be ready to fly," Collins said.



NASA photo

## ASI receives NASA small business award

NASA Deputy Administrator Fred Gregory, left, presents Irma Tudor, president and chief executive officer of Analytical Services Inc., the 2003 NASA Woman-Owned Small Business of the Year award in Washington, D.C., on Sept. 23. The Marshall Center nominated ASI for outstanding performance in support of the Orbital Space Plane program.

## Safety Excellence Award winners

Several Marshall team members were recognized with awards during last week's Safety Day.

For photos of the day-long event, see pages 6-7.

### MSFC Management Award

#### Donald F. Bishop - Science Directorate:

For continuously demonstrating a sincere commitment to the safety of employees in the Business Management Office, and for providing employees an excellent management example of leadership in the safety arena.

#### Patrick L. Hunt – ED26, Engineering

**Directorate:** In recognition of exemplary leadership, performance and initiative in implementing significant safety improvements to the Environmental Test Facility.

### Team Awards

- Raymond E. Bradley
- Joseph C. Drawdy
- Johnney C. Mason
- Mary L. Zender

**QS50, HEI Industrial Safety Facility Inspection Group, Hernandez Engineering Inc.:** For continuous significant contributions to the occupational health of Marshall employees through your awareness, actions, and professionalism.

- Gordon DeRamus III
- James Pierce
- Trent Taylor

**FD24, Flight Directorate/Hernandez Engineering:** For exemplary dedication toward the successful development and implementation of the Multi-purpose Logistics Module Solid State Heater Controller.

### Individual Awards

**Chris Delano – QS30, Safety and Mission Assurance Directorate:** In recognition of your dedicated support and commitment as the SUBSA and PFMI Safety and Mission Assurance Lead for the development of these payloads for the International Space Station Second Utilization Flight (UF2).

**Tammy Barcala – TD40, Space Transportation Directorate, Propulsion Research Center:** In recognition of your exceptional performance as the Safety in the Work Place Monitor for the Space Transportation Directorate and your outstanding



Photo by Emmett Given, NASA-Marshall Center

### Checking out NASA career opportunities

Alabama A&M University in Huntsville recently held its annual Career Fair-Interview Day. Marshall team member Travian Smith, left, shares information about NASA's Cooperative Education Program with Melanie Warner, right, a graduate student at the university, during the two-day event. The Marshall Center was represented by the Cooperative Education Program Office, Education Department, Equal Opportunity Office, Human Resources Department and the Engineering Directorate.

professional performance as the building manager for Bldg. 4203.

**Mark E. Hyder – AD23, Center Operations Directorate – Facilities Construction Group:** In recognition of your professional excellence and untiring commitment to providing a safe work environment for all employees at Marshall.

**Brian D. Ramsey – SD50, Science Directorate:** In recognition of your dedicated service to the cause of radiation safety as the chairman of the Marshall Space Flight Center Radiation Safety Committee

**Bruce Guy – QS50, Hernandez Engineering:** In recognition of your expertise and dedication to process improvement and innovation related to safety findings that have reduced closure of findings from weeks to days, thus providing a safer Marshall working environment.

**Robert Dunn – Hernandez Engineering Inc:** In recognition of your sustained commitment to technical excellence and the thorough application of safety engineering principles in support of the development of the International Space Station Oxygen Generation System.

**James Mankoski - SD70, Science Directorate, Space Optics Manufacturing and Technology Center:** In recognition of sustained superior implementation of safe practices and safe operations of the Space Optics Manufacturing and Technology Center's Optical Machine shop.

**Brad Engel – QS20, Hernandez Engineering Inc.:** In recognition of your dedication and true NASA team spirit in improving the safety and reliability of the Space Shuttle System.



# Marshall Safety Day stresses

**S**afety Day at the Marshall Center this year stressed the theme, "If it's not safe, say so!"

Events were held Oct. 8 in Morris Auditorium and at the Center Activities Bldg. 4316.

Marshall team members participated in safety workshops, and a Safety, Health & Environmental Fair featuring vendor and organization displays and exhibits.

Space Shuttle pilot Pamela Melroy also visited with team members and signed autographs.

Guest speaker was Steve Williams, president of Accelerated Development Systems Inc. -- a Houston-based training and development firm specializing in helping companies achieve safety performance objectives by reducing human error.



Astronaut Pamela Melroy, left, and Marshall's Director of Safety and Mission Assurance Dr. Jan Davis, second from left, check out safety equipment at the Grainger Industries booth during the Safety, Health & Environmental Fair in Center Activities Bldg. 4316 last week. Staffing the booth are Grainger representatives Brian Entekin, second from right, and Patti Davis, right.

Photo by Doug Stoffer, NASA/Marshall Center



Ela Washington, left, Chanel Leslie, center and Shelve Miller, right, react to Safety guest speaker Steve Williams' humor.

Photo by Emmett Given, NASA/Marshall Center



Steve Williams gets animated during his safety workshop presentation.

Photo by Emmett Given, NASA/Marshall Center



Linda Schoo, left, of the American Red Cross, demonstrates life-saving equipment for Marshall team member Derek Wang.

Photo by Doug Stoffer, NASA/Marshall Center



Marshall team member Ed Kirch, left, receives "stress release" from Katherine Harris, right, a massage therapist.

Photo by Doug Stoffer, NASA/Marshall Center



# theme 'If it's not safe, say so!'



Photo by Doug Stoffer, NASA/Marshall Center

Annette Loveday, center, demonstrates the Marshall Safety Reporting System to, from left, Sandra Miller, Ronald Baine, Randy Cain and Ed Adams.



Photo by Emmett Given, NASA/Marshall Center

Marshall Associate Director Axel Roth shares some humorous safety warnings from package labels with Center team members in Morris Auditorium during Safety Day.



Photo by Doug Stoffer, NASA/Marshall Center

Sharon Scroggins, left, visits the U.S. Coast Guard Auxiliary booth while Carl Rodenburg, seated, explains what different channel markers mean for boaters. Helping Rodenburg are Deanne Rodenburg, center, and Roseanne Deramus, right.



Photo by Doug Stoffer, NASA/Marshall Center

Marshall team members sign up for a wet-dry vacuum being given away during the safety fair.



Photo by Doug Stoffer, NASA/Marshall Center

Shuttle pilot Pamela Melroy signs a photograph for Marshall team member Deloris Thomas.



Photo by Doug Stoffer, NASA/Marshall Center

Ed Crowder, right, a representative from Iron Age Shoes, helps Marshall team members, from left, Donald Strange, Henry Brewer and Chris Kalange as they check out safety shoes.



Photo by Doug Stoffer, NASA/Marshall Center

### **CFC bus tour participants learn about agency needs**

Chris Russell, right, development director at the National Children's Advocacy Center in Huntsville, gives a tour of the center's facilities to Marshall team members participating in the Combined Federal Campaign bus tours. This year's goal for the Marshall Center is to raise \$500,000 during the six-week campaign. More than \$210,000 has been raised since the campaign began a little more than two weeks ago.

## **NASA SES Candidate Development Program open until Nov. 7**

**T**he NASA Senior Executive Service Candidate Development Program is accepting applications until Nov. 7.

The program is for GS-14 and GS-15 federal employees who have potential for assuming executive responsibilities. The program can be completed on a part-time basis during a 12-18 month period.

Applicants must apply on "NASA Stars." If a resume is already on file, apply through "Quick Apply." Required supplemental information can be provided in the "Other Information" section of Resume Builder. For information, call Deidra Williams at 544-5721.

## **Flu shots to be available for Marshall team members**

**T**he Marshall Medical Center will offer flu shots at various Center locations for Marshall team members.

Participants must have a NASA-issued badge or they will be refused service. All Marshall team members, civil service and contractor, are eligible for the flu shots. Retirees are not eligible.

Those who choose to receive a flu shot should wear short sleeves.

Shots will be given at the following locations:

- ☛ Oct. 23, noon-3 p.m. in Bldg. 4200, Room G-13C
- ☛ Oct. 28, noon-3 p.m. in Bldg. 4610, Room 1054

The possibility exists that an emergency call may occur during administration of these shots. Since the HEMSIs paramedics are integral to administering flu shots and they are required to

respond to an emergency, participants can expect delays in the event of an emergency.

There will be limited staff at the Marshall Medical Center during the flu shot program. Any non-emergency visits and routine allergy injections should be scheduled around the flu shot program times. Appointments already scheduled will be kept.

Opportunities for flu shots at the Medical Center will be announced after Oct. 28, according to how much vaccine is left.

NASA Headquarters has requested that Marshall employees participate in a survey to determine the percentage of vaccine recipients who are considered at high risk. This short questionnaire will be provided at the time of vaccination. Please take a moment to fill it out. Completed questionnaires will be returned to NASA Headquarters for tabulation.

### **Marshall Star classified ad guidelines**

- ☛ Classified ads due no later than noon Mondays, limit 15 words, including home phone number of seller. Only one phone number allowed per ad. Ads are subject to editing for length and clarity.
- ☛ Civil servants, contractors and Marshall retirees may run ads at no charge. No ads for real estate, timeshares or for goods and services manufactured or provided as a home occupation or business.
- ☛ Ads may be submitted by e-mail to [intercom@msfc.nasa.gov](mailto:intercom@msfc.nasa.gov). Electronic forms for onsite Marshall team members are on "Inside Marshall." Go to "Employee Resources" to find the form, or to the "News Sources" tab, click "MSFC News" and "Submit Marshall Star Classified Ad."
- ☛ Classified ads can be mailed to: Marshall Internal Relations and Communications Department, CD40, Bldg. 4200, Room 101, Marshall Space Flight Center 35812
- ☛ Organization codes and work phone numbers should be included for clarification. Retirees should include their former org code or department name.
- ☛ Ads must be resubmitted weekly. Ads cannot be submitted by phone.
- ☛ For more information, call Janie Crawford at 544-0514.

### **Who am I?**

**J.C. Brewer drives a taxi at the Marshall Center. He's driven buses, gas trucks, diesel trucks and also has driven just about all of the Center's directors. An avid gardener, who once grew a 27-pound cabbage, Brewer also teaches adult Sunday school and has been married for 42 years. He has one daughter and one grandson.**



Photo by David Higginbotham, NASA/Marshall Center



# NASA Exchange taking orders for annual nut sale

**A**gain this year, the NASA Exchange is offering Marshall team members and retirees the opportunity to purchase nuts through pre-

orders. Orders will be accepted through Oct. 27. Expected delivery date is Nov. 20.

The order form should be completed and mailed or delivered, along with

payment, to the NASA Exchange Space Shop, Attn: Candy Kelley, CD10XX, Bldg. 4203, Marshall Space Flight Center, AL. 35812



*Marshall Exchange*

## "NASA EXCHANGE ANNUAL NUT SALE"

### Order Form

NAME: \_\_\_\_\_ Office Symbol: \_\_\_\_\_  
Office Phone: \_\_\_\_\_ Email Address: \_\_\_\_\_

#### SPECIFY QUANTITY AND TOTAL PRICE

Product (16 oz. Unless noted):	QUANTITY	TOTAL PRICE
Slivered Almonds (11 oz.) @ \$2.50	_____	\$ _____
Cashews @ \$4.50	_____	\$ _____
Chocolate Covered Pecans @ \$7.00	_____	\$ _____
Crunchy Praline Pecans @ \$7.00	_____	\$ _____
English Walnuts @ \$3.50	_____	\$ _____
Natural Almonds (12 oz.) @ \$2.50	_____	\$ _____
Pecan Halves @ \$5.50	_____	\$ _____
Pistachios @ \$4.50	_____	\$ _____
Raw Peanuts @ \$2.00	_____	\$ _____
Roasted & Salted Pecans @ \$7.00	_____	\$ _____
White Chocolate Pecans @ \$7.00	_____	\$ _____
<b>Totals</b>		<b>\$ _____</b>

\*\*\*\*PAYMENT MUST ACCOMPANY ORDER\*\*\*\*

Make Checks Payable to: NASA Exchange - MSFC

DEADLINE FOR ORDERING IS: October 27, 2003

PLEASE MAIL CHECK & ORDER TO: CD10X, ATTN: CANDY KELLEY, NASA EXCHANGE SPACE SHOP, BLDG. 4203. Payment may be made by Cash, VISA, MasterCard, Discover, or American Express by taking your order form to the NASA Exchange Space Shop located in Building 4203.

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

MSFC One-Time Form (1)

## Job Announcements

**MS03D0190**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0191**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0192**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Three vacancies in New Orleans. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0193**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Duty location Kennedy Space Center, Fla. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0194**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Two vacancies in Brigham City, Utah. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0195**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Two vacancies in Los Angeles. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0201**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Two vacancies at Kennedy Space Center, Fla. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0203**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS03D0204**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Closes Oct. 16.

Contact: Rita Evans-McCoy at 544-7507.

**MS03D0205**, AST, Reliability & Quality Assurance. GS-0861-13, Safety and Mission Assurance Office, Shuttle Assurance Department. Closes Oct. 16. Contact: Rita Evans-McCoy at 544-7507.

**MS04C0010**, Management Support Assistant (OA). GS-0303-06, Office of the Chief Financial Officer. Closes Oct. 20. Contact: Dana Blaine at 544-7514.

**MS04D0013**, AST, Structural Materials. GS-0806-07, 09, 11, Engineering Directorate, Materials, Processes & Manufacturing Department. Closes Oct. 17. Contact: Debbie Longeddy at 544-2308.

**MS03D0014**, AST, Structural Materials. GS-0806-13, Engineering Directorate, Materials, Processes & Manufacturing Department. Closes Oct. 20. Contact: Debbie Longeddy at 544-2308.

**MS04D0015**, AST, Aerospace Materials. GS-0806-13, Engineering Directorate, Materials, Processes & Manufacturing Department. Closes Oct. 21. Contact: Debbie Longeddy at 544-2308.

**MS04D0016**, AST, Electronic Systems Failure Analysis. GS-0855-13, Engineering Directorate, Avionics Department. Closes Oct. 20. Contact: Allan Day at 544-4079.

**MS04D0017**, AST, Aerospace Materials. GS-0806-13, Engineering Directorate, Materials, Processes & Manufacturing Department. Closes Oct. 21. Contact: Debbie Longeddy at 544-2308.

**MS04D0018**, AST, Basic Properties of Materials. GS-1310-13, Engineering Directorate, Materials, Processes & Manufacturing Department. Closes Oct. 22. Contact: Debbie Longeddy at 544-2308.

**MS04D0019**, AST, Liquid Propulsion Systems. GS-0861-07, 09, Space Transportation Directorate, Vehicle & Systems Development Department. Closes Oct. 22. Contact: Jim Bramblett at 544-3398.

**MS04D0020**, AST, Experimental Facilities Development. GS-0801-13, Center Operations Directorate, Facilities

Engineering Department. Closes Oct. 27. Contact: Dana Blaine at 544-7514.

**MS04D0021**, AST, Software Systems. GS-0854-07, 09, 11, Engineering Directorate, Avionics Department. Closes Oct. 22. Contact: Allan Day at 544-4079.

**MS04C0022**, Administrative Officer. GS-0341-07, 09, Engineering Directorate, Office of the Director. Closes Oct. 24. Contact: Rita Evans-McCoy at 544-7507.

**MS04D0023**, AST, Data Systems. GS-0854-13, Engineering Directorate, Avionics Department. Closes Oct. 24. Contact: Allan Day at 544-4079.

**MS04D0024**, AST, Liquid Propulsion Systems. GS-0861-07, Space Transportation Directorate, Vehicle & Systems Development Department. Closes Oct. 24. Contact: Jim Bramblett at 544-3398.

**MS04D0025**, AST, Fluid Mechanics. GS-0861-13, Space Transportation Directorate, Subsystems & Component Development Department. Closes Oct. 27. Contact: Jim Bramblett at 544-3398.

**MS04D0026**, AST, Aerothermodynamics. GS-0861-13, Space Transportation Directorate, Subsystems & Component Development Department. Closes Oct. 27. Contact: Jim Bramblett at 544-3398.

## Obituaries

**Hugh Morgan Feather, 72**, of Huntsville, died Sept. 20. Funeral services were held at Laughlin Service Funeral Home in Huntsville with the Rev. Ira Laney officiating. Burial was in Valhalla Cemetery with Laughlin Service Funeral Home directing.

Feather was born March 12, 1931. He was an honor graduate of Virginia Polytechnic Institute, a U.S. Air Force veteran and a retired aerospace engineer from NASA and Grumman. He was a member of Highland United Methodist Church.

Feather is survived by his wife, Cordelia Feather; one son, Brian K. Feather of Tennessee; one daughter, Karen Lynne Wheatley of Huntsville; one sister, Mary E. Khan of Petersburg, Va.; and nine grandchildren.



# Center Announcements

## **SLTS design and operations workshop is Nov. 17-19**

A Space Launch and Transportation Systems Design and Operations workshop will be Nov. 17-19 at the Marshall Center in Bldg. 4200, Room G-13E. The course is for space professionals who produce, operate and use cost-effective space launch and transportation systems. The workshop's focus is technical risk identification and mitigation in the most cost-effective manner, while maintaining technical integrity of a vehicle and infrastructure. For more information, see "Inside Marshall."

## **Full Cost in Practice course available for Marshall team**

Full Cost in Practice, an eight-hour course, will be offered for Marshall team members Oct. 21-23 in Bldg. 4200, Room G-13. The course is sponsored by the Office of the Chief Financial Officer in conjunction with the Agency Full Cost Training Team. Registration is through AdminStar. A prerequisite for the course is the Web-based training FC 101 at <https://fullcost.hq.nasa.gov>. For more information, see "Inside Marshall."

## **New hours for allergy injections in effect at Medical Center**

New hours for receiving allergy injections at the Marshall Medical Center are 9-10:30 a.m. and noon-2:45 p.m. weekdays.

## **Marshall conducting controlled equipment inventory**

A 100 percent physical inventory of all controlled NASA bar-coded equipment is underway. The scanning schedule is at <http://inv2002.msfc.nasa.gov/inv2003/>. For more information, call Robbie Saint at 544-9618.

## **MARS Dance Club classes held each Monday night**

The NASA MARS Dance Club has intermediate and beginner ballroom dance classes starting at 7 p.m. and 8 p.m., respectively, every Monday at St.

Stephens Episcopal Church on Whitesburg Drive in Huntsville. For more information, call Jerry Maxwell at 544-1954.

## **Discount circus tickets available for Marshall team members**

Marshall team members can receive a \$3.50 discount on seats in the box and mezzanine sections when the Ringling Brothers and Barnum & Bailey Circus perform Dec. 3-7 at the Von Braun Center. Tickets go on sale at the Von Braun Center on Oct. 23. Marshall team members should show their identification badges to receive the discount. For more information, see "Inside Marshall."

## **Marshall team invited to 'State of the City' address Oct. 29**

Marshall team members are invited to the "State of the City" address by Huntsville Mayor Loretta Spencer at noon Oct. 29 in the Von Braun Center's North Hall. Tickets cost \$25. Reservations and payment must be received by Rosa Kilpatrick in the Government and Community Relations Department by noon Oct. 21. Checks should be made payable to the Chamber of Commerce of Huntsville and Madison County.

## **American Chemical Society to meet Oct. 27**

The North Alabama Section of the American Chemical Society will meet at 6 p.m. Oct. 27 at the Decatur Holiday Inn on U.S. 31 South at Alabama 20 West just across the Tennessee River bridge. For more information, call Dr. Rudy Gostowski at 544-0458.

## **Shuttle Buddies to meet Oct. 27**

The Shuttle Buddies will meet at 8:30 a.m. Oct. 27 at Shoney's on University Drive at Memorial Parkway in Huntsville. For more information, call Deemer Self at 881-7757.

## **Management Operations retirees to meet Oct. 23**

The Management Operations Office retirees will meet for brunch at 10 a.m. Oct. 23 at the Cracker Barrel Restaurant in Madison. For more information, call 539-0042.

## **MARS Tennis Club Hi-Lo Closed Doubles Tournament is Oct. 25**

The MARS Tennis Club will host a Hi-Lo Closed Doubles Tournament at 8 a.m. Oct. 25. Participants will be matched with a doubles partner at the tournament, which is for MARS Tennis Club members only. For more information, call Ronda Moyers at 544-6809.

## **Telephone system outage set for Friday-Sunday**

Upgrades to the Marshall voice switch network will cause outages and disruption to telephone equipment including faxes, modems, conference phones and paging systems beginning at 6 p.m. Friday-8 p.m. Sunday. For a list of affected buildings, see "Inside Marshall." For more information, call the NASA Information Support Center at 544-HELP, Option 0.

## **NASA Exchange hosting book fair Oct. 21-24**

The NASA Exchange will host a book fair Oct. 21-24 from 8 a.m.-3:30 p.m. in the Bldg. 4203 lobby. A wide variety of books and music will be available at discount prices.

## **Big Brothers-Big Sisters event set for Nov. 14-16**

The Big Brothers-Big Sisters annual fund-raising campaign this year features "Bowl for Kids Sake" on Nov. 14-16 at Monarch Lanes on Bob Wallace Avenue in Huntsville. For more information, call 880-2123 or go to [www.bbb-sna.com](http://www.bbb-sna.com) or call Teresa A. Foley-Batts at 544-0335.

## Classified Ads

### Miscellaneous

- ★ LazyBoy recliner, lumbar support, lifetime stain guard, mauve, \$300. 534-3252 lv. msg.
- ★ Stereo components cabinet and speaker enclosure w/15" extended range JBL speaker, \$150. 355-8589
- ★ Push mower, \$25; Nordic Track exercise machine w/instructional video \$100; can deliver. 325-6000
- ★ Ladies clothes, size 12, \$5; computer desk, \$60; large wooden desk, \$40; shoes, \$5. 256-534-0939
- ★ Kenmore refrigerator, 22 cu. ft., frost-free, side-by-side, white/black front, water/ice in door, \$400. 880-9025
- ★ Six Eastlake walnut dining chairs, recently reupholstered, sturdy, \$1,350. 931-468-2440
- ★ Carpet remnants: 94"x102", \$15; 103"x141", \$25; Lawnmower, 22", 3.5HP, B/S engine, \$20. 881-5642
- ★ Gun cabinets, \$250 each; pistol, .357 magnum, ammo., \$250; natural gas heater, 50KBTU, \$225. 256-498-3023
- ★ Big Kahuna wake board, 140cm Hyperlite, w/O'Brien Morph bindings, \$175. 864-2629
- ★ HP 1600c color printer w/5-color ink cartridges, \$150. 256-734-7200
- ★ Antique bed, full, \$100; two end tables, \$60; LazyBoy rocker/recliner, gold, \$50. 880-8893
- ★ Two winter dress coats w/hats, Girl's, red w/ black trim, size 4, \$15 each. 890-0755
- ★ Entertainment center, 3-piece, indirect lighting, \$300; black metal desk w/chair, \$100. 883-5168
- ★ Okidata printer, Okipage 16n, \$250. 256-734-7200
- ★ Polar A1 heart rate monitor, \$35. 256-655-2055
- ★ Dell computer, 1.3GHz, 30GB HD, 128MB ram, CD burner, no monitor, \$400. 205-305-9376
- ★ Crappie Special, 40HP mariner, loaded, \$3,995. 881-6859
- ★ HP ScanJet 3C scanner, needs cables, \$75. 256-351-9467
- ★ 1997 Avion travel trailer, 27', for hunting and camping, fully equipped, \$4,900. 931-427-2059
- ★ Frigidaire heavy-duty washer & dryer, white, \$350; wood & wrought iron daybed w/ mattress, \$40. 864-9920
- ★ Dark blue sofa set, \$500; full-size mattress set, \$150; coffee table set, \$200. 858-0655
- ★ Dell Dimension mini-tower, 200MHz,

- 128MB RAM, 3.5GB HDD, Ethernet, video, sound, \$50. 765-532-4218
- ★ Broyhill couch and loveseat w/matching recliner, \$300. 256-751-3766
- ★ Floor to ceiling architectural column, new, \$200. 464-8506
- ★ Twin mattress/box spring, XL, \$100; Dorm-size refrigerator, \$25; small microwave, \$20. 256-721-0042
- ★ Game Boy, color, case and one game, includes Game Boy pocket, \$25. 256-757-0469
- ★ Electric wheelchair, \$295; fold-away motorized treadmill, \$150; women's coats, sweaters, size 10/12, \$10. 852-6952
- ★ Karaoke machine, Venturer, 5-tapes, \$25; Sears garage door opener, 1/2HP, chain drive, manual, \$25. 883-2948
- ★ Queen waterbed, headboard, 6-drawer pedestal, cushioned side rails, heater, semi-waveless mattress, bedding, \$75. 655-7215
- ★ "ForeverMine" convertible crib, mattress, bedding, 3-drawer changing table, 5-drawer chest, white, \$500. 256-233-1119
- ★ Two Mahogany wall clocks in box, chime on hour, \$85 each. 256-498-6580 lv. msg.
- ★ 2003 Artic Cat 4-wheeler, 180 miles, 400cc, 2 & 4 WD, low/high range, \$5,000. 883-9741
- ★ Longaberger Collector baskets: 2 corn baskets dated 1985 w/Inverted bottoms, \$250 each. 325-0328
- ★ Palm V accessories kit, modem, charger, wireless web, GSM upgrade, cases, faceplates, \$20. 772-8489

### Vehicles

- ★ Muncie, 4-speed, \$600; 67-60 Camaro, 12 bolt rear-end, \$700. 513-0524
- ★ 1995 GMC Serria Z71 ext. cab pickup, garage kept, good tires. 931-937-6518
- ★ 2000 Mazda 626, 4-door, 41K miles, silver w/gray interior, PS/PB/PB/PL, AM/FM/CD cassette, a/c, \$9,950. 256-230-0806
- ★ 1996 Infiniti I30, 4-door, pearl white, tan interior, loaded, \$7,150. 837-6879
- ★ 1982 Cadillac Sedan DeVille, \$250. 881-6040
- ★ 1997 Dodge Ram 1500 Club Cab pickup, 1/2-ton, 5.9L engine, 360CID, 31K miles, \$12,900. 828-4817/lv. msg.
- ★ 1989 S-15 GMC Jimmy, Gypsy package, 4.3L, 4WD, black/blue, 230K miles, \$1,550. 837-6517
- ★ 1994 BMW 325is, leather, AM/FM/cassette, CD changer, 5-speed manual transmission, 70K miles, \$11,700. 837-5580

- ★ 1996 Ford Bronco XLT, 5.8L, new tires, brakes, shocks, 130K miles, \$7,950. 883-1874 after 5 p.m.
- ★ 1996 Mercury Mystique, 4-door, 4-cyl., automatic, 120K miles, a/c, \$2,175 firm. 256-753-2278
- ★ 2000 Volvo S70 AWD, platinum, 5-cyl., auto, sunroof, AM/FM/Tape/CD, good tires, 88K miles, \$15,000. 256-891-1073
- ★ 2000 Ford Contour, 4-door, PW/PB, AM/FM/cassette, cruise, 66K miles, \$8,450. 256-746-8289
- ★ 1990 S10 Chevrolet truck, 5-speed, AM/FM/CD, a/c, \$1,000. 256-746-8289
- ★ 1981 Corvette, rust metallic, fully loaded, glass T-top, 56K miles. 256-509-9413
- ★ 1992 Firebird 305, automatic, green, T-tops, factory CD, 183K miles, one-owner, well maintained, \$4,000. 931-433-8542
- ★ 1992 GMC 2500 conversion van; front/rear A/C & heat, power windows/door locks, 5.7L/V8. 931-363-7764
- ★ 2001 Silverado, V6, LWB, low mileage, truck box, bedliner, tow pkg., warranty, \$13,000. 881-3661
- ★ 1997 Seville STS, 43K miles, \$12,500. 536-5417
- ★ 1995 Dodge Caravan SE, automatic, 164K miles, blue exterior, gray interior, V6, \$2,000. 256-880-3337
- ★ 1975 Mercedes Benz 450 SL, red w/black convertible top, \$12,500. 533-5942
- ★ 1989 S-15 GMC Jimmy, 4.3L, 4WD, black/blue, 230K miles, \$1,500. 837-6517
- ★ 1986 Chevrolet Silverado pickup, 30K on 350, many new parts, red, \$4,000. 256-247-0680

### Wanted

- ★ Used Honda Civic Hatchback, 1992-up, or Honda Del Sol in good running condition. 527-0545
- ★ Alabama vs. Tennessee tickets, need 5 or 6.

### Free

- ★ Black Great Dane, male, 1 year, inside dog, has papers. 256-772-7478

## MARSHALL STAR

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